# **ALL IN ONE PISTOL PACK ANIMATIONS**



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#### Intro

Animations in this pack are about shooting pistols and revolver guns. Made for a 3rd person shooting game. Humanoid and Generic are both available, Gun model is available to replace. All animations were already set up to Animator in Unity.

#### **Animations list**

- Stand Idle
- Squad Idle
- Stand Aiming Idle
- Squad Aiming Idle
- Stand walk with 8 directions
- Squad walk with 8 directions
- Stand run with 8 directions
- Squad run with 8 directions
- Hold the gun at chest level in stand pose
- Hold the gun at chest level in squad pose
- Hold the gun at waist level in stand pose
- Hold the gun at waist level in squad pose
- Reloading pistol in stand pose
- Reloading pistol in squad pose
- Reloading revolver in stand pose
- Reloading revolver in squad pose
- Shooting pistol in stand pose
- Shooting pistol in squad pose
- Shooting burst in stand pose
- Shooting burst in squad pose
- Shooting full auto in stand pose
- Shooting full auto in squad pose
- Shooting revolver in stand pose
- Shooting revolver in squad pose
- Pickup thing in stand pose
- Pickup thing in squad pose
- Turn left foot step 90 degree in stand pose
- Turn left foot step 90 degree in squad pose
- Turn right foot step 90 degree in stand pose
- Turn right foot step 90 degree in squad pose
- Melee attack in stand pose
- Melee attack in squad pose
- Pick up the gun from gun holster in stand pose
- Pick up the gun from gun holster in squad pose
- Put the gun back in to gun holster in stand pose
- Put the gun back in to gun holster in squad pose
- Hurt

**Total 65 Animations** 

#### **Parameter Guide**

#### Locomotion

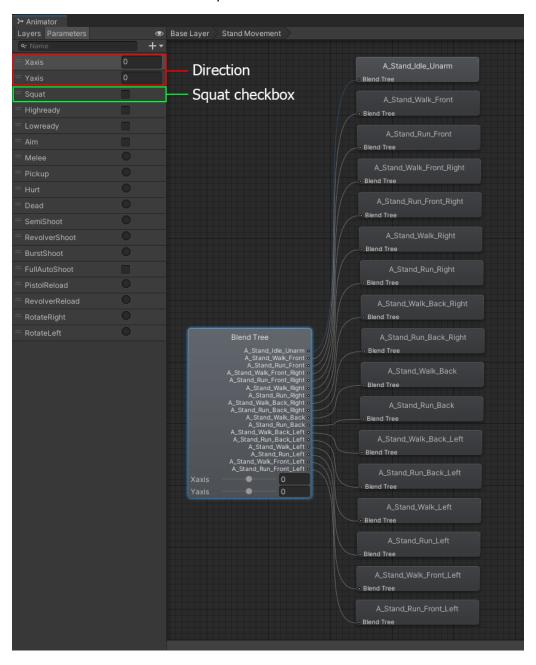
Character's walk and run depending on the float number that is input at parameters by the absolute value 0.5 is walk and absolute value 1.0 is run.

- "Xaxis" is control Left or Right Direction
- "Yaxis" is control Front or Back Direction

Example 1: Xaxis is 0 and Yaxis is -1, Character will Run Back direction

Example 2: Xaxis is -0.5 and Yaxis is 0.5, Character will walk Front Left direction

If you want Squad pose, Just Check is Squad boolean parameter's checkbox, character will move on in the same direction but squad down.



#### Animation

- The elevation of the hand can adjust with 3 levels by selecting at Hightready, Lowready or Aim Boolean parameters.

isHightready: Character will move hand to chest level isLowready: Character will move hand to waist level

isAim: Character will Aim the gun forward

- Melee, Pickup and Hurt are trigger parameters, You can trigger to use animation whenever you want.

isMelee: Attract something with gun in front of character

isPickup: Collect thing from the ground

isHurt: Little body jerk from hit by something

- Shooting and reload animations are trigger parameters accept FulllAutoShoot is boolean parameter.

SemiShoot: Shooting with pistol 1 time

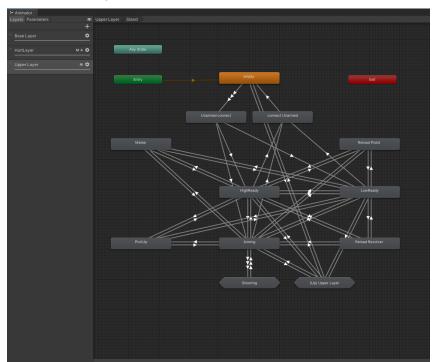
RevolverShoot: Shooting with revolver 1 time BurstShoot: Shooting with pistol 3 times FullAutoShoot: Shooting with pistol on loop

PistolRevolver : Reload pistol gun RevolverReload : Reload revolver gun

> Ragdoll Physics was used for the Dead animation part to generate a character falling to the ground like they die immediately by bullet force. You can switch it on/off at Dead boolean parameter.

isDead: Character will fall down

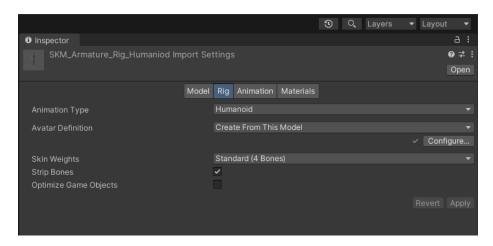
 RotateRight and RotateLeft are used for coding that was already set up, You don't have to adjust it.



## **Animation Retargeting set up**

To use the same animation between different characters, After importing the original character that was assigned animation into the project. Assign the same Animator Controller to yours first and mapping the character's bone names to a set of standard names.

- Select The original character in the assets panel.
- Select the Rig tab and then choose Humanoid from the Animation Type dropdown and Apply.
- Click the Configure button to configure the avatar.

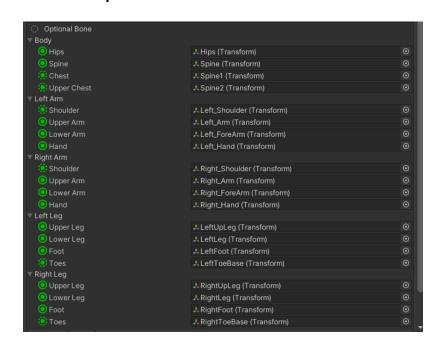


Now you can see how the bones of the character have been automatically mapped, but you can assign bones manually by selecting the bone in the scene view and drag it in.

- Select **the animation** in the asset panel.
- Choose Humanoid from the Animation Type dropdown and Apply.
- Change the Avatar Definition to Copy From Other Avatar.
- Set the source to **The original character's Avatar** that was just created.

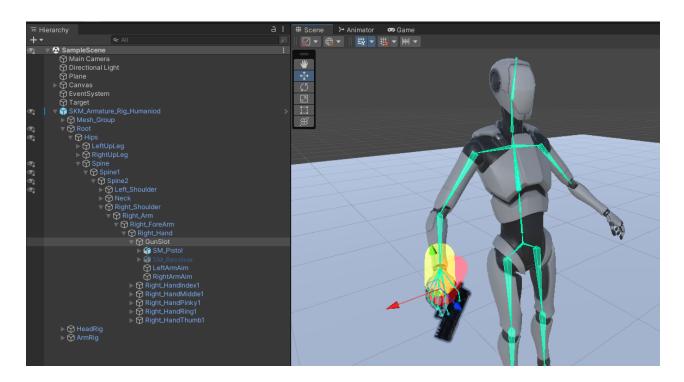
You need to do the same for your character.

Select your character in the hierarchy, and then set the correct avatar in the **Animator component**.



## Add your gun model to your character

You can add the gun model to your character by **Create Empty** in **RightHand** bone and rename it to **GunSlot** to put the gun model in it then you can reposition and resize by adjusting at the GunSlot **NOT** Gunmodel.



## **Animation Rigging Installation**

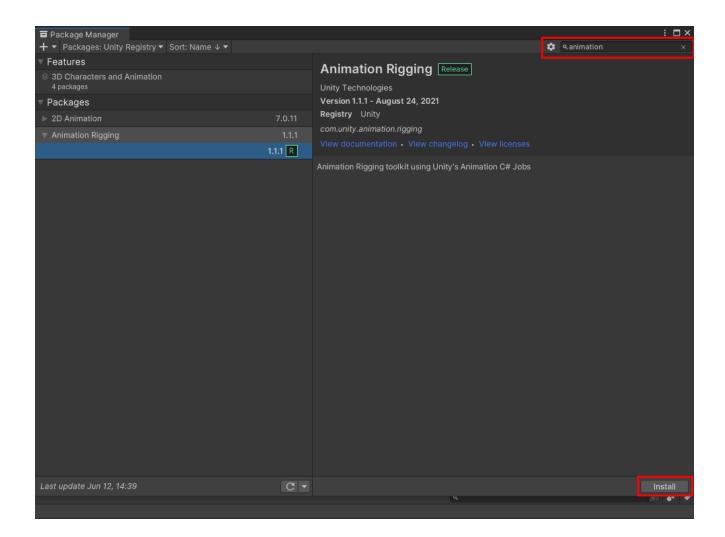
Aiming directions was set up to adjust dynamically by Animation Rigging you have to install the Animation Rigging in Unity first.

Recheck the version of your Unity first, Animation Rigging will also works with 2019.3 First, You have to make sure to enable preview packages.

- Under **Edit**, go to the **Project Setting** and it will pop up a window.
- Go into Package Manager and make sure to check enable in the checkbox Preview package.

Now you can simply open up the **Package Manager** window.

- Under Window, go to Packagger.
- At the top, Make sure to **show all packages** and now you can just search for "Animation" in the search bar then **Animation Rigging** will appear.
- Select that and Install it.



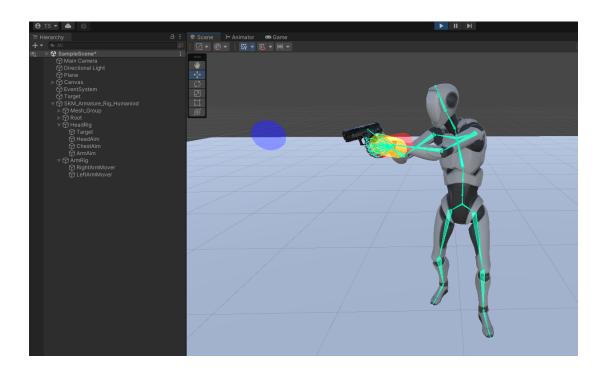
## Target for character to Aim direction

Make the character look at wherever the target was with Animation Rigging.

- Select your character. Under Animation Rigging, go to Rig Setup then Rename
  Rig 1 to HeadRig or any names you want.
- Right click on **HeadRig** and **Crate Empty** to create HeadAim, ChestAim and ArmAim.
- Select HeadAim and add component Multi-Aim Constraint in Animation Rigging Category.
- Assign **HeadAim** to **Constrained Object** and drag **Target** (Target which we already put in the scene that was set up for you) into the slot at **Source Object** then set weight to 0.25 and check in the **Maintain Offset** checkbox.
- Do it the same to ChestAim then go to Offset in Settings and set X to 30 and Y to 3.

Now your character's head and chest will aim to the target BUT if you want to change hand's position for another gun model like assault rifle, you have to add **Two Bone IK Constraint** to control position and set them aim to the same target with Head and chest

- Select your character. Under Animation Rigging, go to Rig setup and rename
  Rig 1 to ArmRig.
- Right click on ArmRig and Create Empty to create **RightArmMover** and **RightArmAim**.
- Move RightArmAim into GunSlot and snap it to the RightHand bone.
- Add component **Two Bone IK Constraint** to RightHandMover and assign RightArm bone to **Root**, RightForeArm bone to **Mid**, RightHand bone to **Tip** and RightArmAim to **Target**.
- Select ArmRig, right click and create LeftArmMover and do it the same as Right. Now we have IK to move the hand position but they are not aiming to Target yet.
  - Select **ArmAim** and add component **Multi-Aim Constraint** then assign ArmRig to **Constrained Object** and Target to **Source Objects**.



## Make Character autoplay Turn foot step animation

Auto rotate was controlled by code, just **Copy Component** from the original character and **Paste Component As New** in your character then reassign ArmRig at **Target** slot and your character to **Anim** slot.

## Ragdoll Set up

Ragdoll Physics was used for dead animation but if you prefer to use your own, you don't have to get ragdoll to your character either.

However, If you want your character dead by ragdoll physics, follow this below.

- Under GameObject, go to 3D Object and select the Ragdoll. This will open up the window Create Ragdoll.
- Referent thing on these different bones by dragging each bone of character frome hierarchy into their slot.

You can resize the collider to fit in with your character by under **Window**, go to **Analysis** and then **Physics Debugger**.

- Right click on **Ragdoll Controller (Script)** Component from the original character and **Paste Component As New** at your character.
- Drag your character's bones from hierarchy to replace a **Ragdoll Controller** (**Script**) component.
- Assign Physics Material names **Limbs** to every bone at the **Collider** component.

